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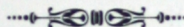
Adm
Adm
Adsco Heating
RADIATES
COMFORT





BULLETIN NO. 181

The
ADSCO SYSTEM OF ATMOSPHERIC
STEAM (VAPOR) HEATING



AMERICAN DISTRICT STEAM COMPANY

GENERAL OFFICES AND WORKS

NORTH TONAWANDA, N.Y.

OFFICES

NEW YORK

CHICAGO

SEATTLE

AGENCIES IN ALL PRINCIPAL CITIES

THE DOMINANT FEATURES OF ADSCO
HEATING ARE COMFORT
AND ECONOMY

AN ATMOSPHERE of satisfaction and comfort radiates in a home, office, church, school or other building when properly heated. A home becomes a haven of comfort when all rooms and all parts of them are warm. It becomes a place of enjoyment for the family and a pleasure to visitors. Above all, good heating preserves health.

Regardless of the kind of system employed, enough heat can generally be had if one is unconcerned over the amount of fuel consumed. The problem has always been to discover a method whereby sufficient heat could be evenly distributed and easily controlled and still have freedom from excessive costs and frequent attention.

In this book we have briefly explained why the AdSCO HEATING SYSTEM is economical, easily controlled, requiring little attention, distributes the heat quickly, and is inexpensive to install.

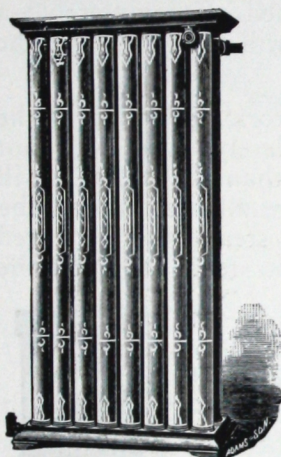
AMERICAN DISTRICT STEAM COMPANY

GENERAL OFFICES AND WORKS
NORTH TONAWANDA, N.Y.

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INCEPTION OF THE ADSCO SYSTEM OF ATMOSPHERIC STEAM (VAPOR) HEATING

IN 1877 when methods of heating were elementary, Mr. Birdsill Holly, a noted heating engineer, conceived the principles of a heating system which has been subsequently developed to a high state of perfection.



This is the type of radiator Mr. Holly used

Mr. Holly's first system was somewhat crude. The radiator consisted of two rows of 3-inch sheet metal tubes about six feet high, connected at the top and bottom with cast iron manifolds. The first graduated radiator valve was at that time manufactured to control the vapor entering the radiator, to permit individual regulation of the temperature in each room.

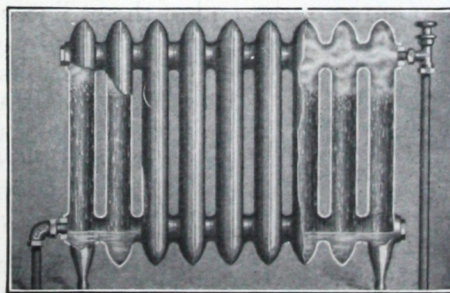
Following the inception of the ADSCO SYSTEM OF ATMOSPHERIC STEAM HEATING in 1877, hot water systems were changed over to ADSCO HEATING, new buildings were equipped with it, not because this was "something different", but because it provided a flexible distribution of heat. Temperatures could be controlled; less work was needed to operate the heating plant, and above all—it saved fuel, since overheating was avoided.

HOW THE ADSCO SYSTEM WORKS

In reviewing the following description you will observe the extreme simplicity, both in design and operation.

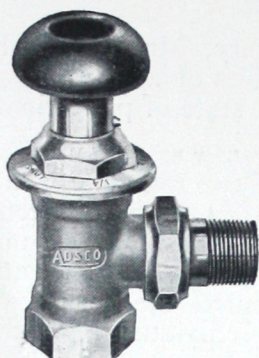
Steam, in the form of vapor, rises from the boiler to the radiators under ounces of pressure—approximately five ounces in normal weather conditions.

The ADSCO PACKLESS GRADUATED RADIATOR VALVE is placed at the top inlet of the radiator (hot water type preferred), which is a most convenient position. This Valve is graduated,



Radiator cut away showing how the ADSCO PACKLESS GRADUATED RADIATOR VALVE controls the steam and why the temperature can be accurately regulated

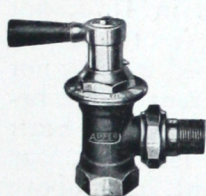
its orifice corresponding to the number of square feet of heating surface in the radiator to which the Valve is attached. A slight turn of the Valve handle increases or decreases the flow of steam into the radiator and the room



ADSCO PACKLESS GRADUATED RADIATOR VALVE
Hand wheel Type

temperature is maintained according to the desire of the occupant. Furthermore, the temperature in any room may be kept at a different degree than that of adjoining rooms, or where no heat is required, the Valve may be turned off completely—a three-quarter turn will open or close the Valve.

Under proper working conditions the Valve, when completely open, will not admit more steam than the radiator will condense. Therefore all the heat will be extracted from the steam and delivered into the room and no steam will enter the return line.



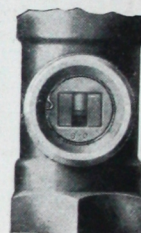
Lever Handle Type



Lock and Shield Type

The body of the AdSCO PACKLESS GRADUATED RADIATOR VALVE is made of brass, nickeled all over, presenting a neat appearance. It does not require packing.

Hand wheel, (as shown in the illustration), Lever handle, or Lock and Shield are the three standard types.



This shows the calibration feature. The oblong orifice assures proper opening and control of the steam entering each radiator.

On the outlet end of the radiator is placed either an AdSCO RETURN ELBOW or AdSCO RADIATOR TRAP. Under proper



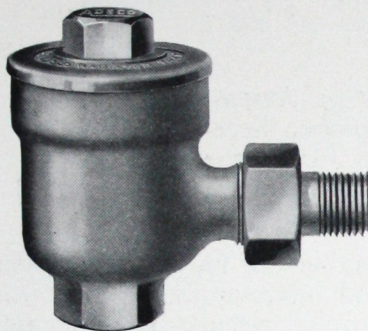
ADSCO RETURN
ELBOW

operating conditions no steam enters the return line. The AdSCO RETURN ELBOW serves economically in discharging the air and condensation from the radiator. (At this time there are thousands of AdSCO installations in buildings from the smaller bungalows to large office buildings, equipped with AdSCO RETURN ELBOWS).

The AdSCO RETURN ELBOW is solid brass, nickel plated.

For double assurance that steam will not be wasted by entering the return lines, the simple AdSCO RADIATOR TRAP may be installed. The steam will only be forced into the returns when an excess pressure occurs, which may result from leaving the ash pit door open, or through carelessness on the part of the operator. AdSCO RADIATOR TRAPS are chiefly

installed in large office buildings and hotels where there may be an unequal distribution of steam pressure and in buildings where the operation of the ADSCO MODULATING VALVE may be neglected during sudden changes in outside temperature.



ADSCO RADIATOR TRAP

The ADSCO RADIATOR TRAP has a bellows of fourteen large corrugations which expand when in contact with steam. This expansion closes the opening in the trap and prevents the steam from entering the return line. The Trap automatically opens again when the steam is condensed, allowing the condensation to flow away freely.

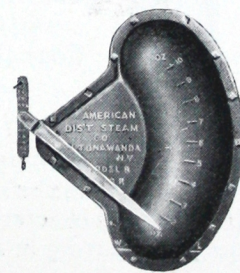
The ADSCO RADIATOR TRAP is manufactured of brass, nickel plated; is easily accessible, compact and neat in appearance.

The pressure on the boiler is kept uniform by the ADSCO DAMPER REGULATOR.

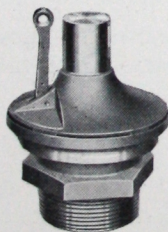
A copper float inside the iron case rides on the water level of the boiler. By means of chain connections to the draft and check damper, the rising and falling of the float regulates the draft. The ADSCO DAMPER REGULATOR is both sensitive and dependable. It will check the boiler when too much steam is being generated, and open the draft when the pressure falls.

An adjustment of from 2 to 10 ounces is secured by simply changing the adjusting plate.

This Damper Regulator is the means by which the ADSCO users are saving from 15% to 25% of fuel. It will not permit waste by letting the boiler generate too much steam. The action is so sensitive that if one radiator, which had been heating, is closed, it immediately affects the Regulator which checks the boiler to reduce the steam output.



ADSCO DAMPER REGULATOR



ADSCO SAFETY VALVE

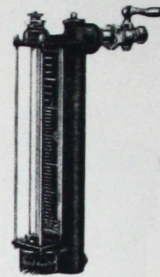
The dependable automatic regulation of the ADSCO DAMPER REGULATOR reduces to a minimum the attention required to operate the boiler.

The danger due to excessive boiler pressure is eliminated by the ADSCO SAFETY VALVE, which is of a type conforming to the A. S. M. E. Boiler Code. This Valve will relieve

the pressure at 24 ounces, should for any reason such pressure ever occur.

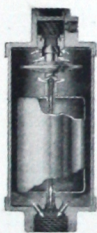
An ADSCO PRESSURE GAUGE is placed either at the boiler or some other convenient place, to indicate the exact pressure on the system.

The return piping of the ADSCO SYSTEM OF ATMOSPHERIC STEAM HEATING is open to the atmosphere, therefore no air valves are required on the radiator, for as the steam enters the radiators the air flows out freely through the return without any noise.



ADSCO PRESSURE
GAUGE

While this vent line avoids the objectionable air valves with their irritating hissing, and discharging of water and odorous air, it performs another and like important duty—it causes a quick circulation of steam. Within a few minutes after steam is generated it will be through the entire system, radiating heat into the rooms.



ADSCO AIR
ELIMINATOR

The ADSCO AIR ELIMINATOR is placed at the end of the return line, allowing the unrestricted escape of air. The AIR ELIMINATOR closes against steam and water, so neither can leave through the vent line, although rarely, if ever, may any condition force water or steam into this line. The body of this ELIMINATOR is solid brass. The thermostat closes the valve instantly when steam comes in contact with it, while the copper float closes the valve when water enters the ELIMINATOR.

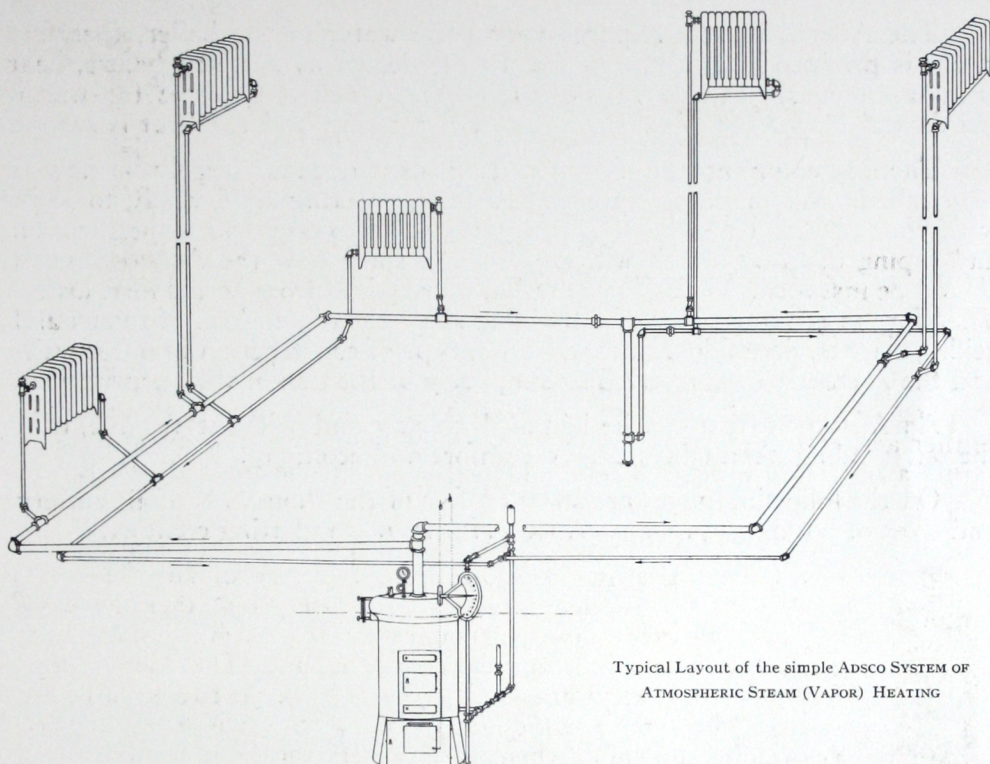
The ADSCO SYSTEM OF ATMOSPHERIC STEAM HEATING is equally adaptable whether steam is supplied by a DISTRICT STEAM HEATING PLANT or from an individual boiler. Its flexibility makes it the most desirable system when steam is purchased, because the positive heat control permits a lower steam consumption and consequently heating bills on a meter basis are less.

Many DISTRICT STEAM HEATING COMPANIES are recommending to all new customers that the ADSCO SYSTEM be installed to gain greater economy.

Where steam is furnished from an outside source, the ADSCO PERFECTION REDUCING VALVE accomplishes the same work as the ADSCO DAMPER REGULATOR on an individual boiler.

The Valve will reduce an initial pressure of 20 pounds or less to a constant and uniform delivery pressure of a few ounces.

ADSCO HEATING RADIATES COMFORT



Typical Layout of the simple AdSCO SYSTEM OF
ATMOSPHERIC STEAM (VAPOR) HEATING

RESUME' OF THE ADVANTAGES OF THE ADSCO SYSTEM

The AdSCO VALVE enables you to use in each radiator just the volume of steam you need. The AdSCO DAMPER REGULATOR allows the boiler to generate only the amount of steam called for and as a result the temperature is always as you want it, and the very minimum amount of fuel is consumed.

FACTS ABOUT THE ADSCO SYSTEM:

- Extremely simple to install and operate.
- Quick circulation of heat.
- Individual temperature control.
- Absolutely noiseless—no air valves to leak or hiss.
- Automatic pressure regulation.
- Little attention necessary to operate.
- Saving in fuel consumption.
- Saving in installation cost.
- Without complicated specialties to cause trouble.
- Adapted to any type or size of building.
- ADSCO HEATING supplies clean heat.

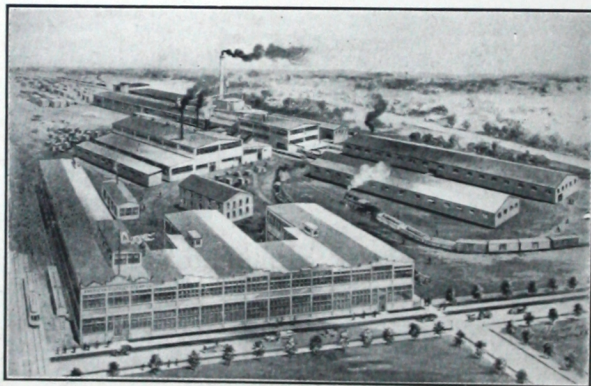
ADSCO HEATING RADIATES COMFORT

The ADSCO SYSTEM requires very little water in the boiler, therefore vapor is produced quickly, and due to the design as outlined before, heat is instantaneously carried to the Radiators. When it becomes too warm, the ADSCO RADIATOR VALVE is given a slight turn and the heat is SAVED.

The degree of success of any heating plant depends largely on how it is installed. We maintain an experienced engineering staff, ready to work with your architect and heating contractor, and to give you a specification and piping diagram which will explain and show how the ADSCO SYSTEM should be installed. We calculate radiation required from actual heat losses. Therefore in sending plans of a building show the dimensions of rooms and ceiling heights, size of doors and windows, type of construction of outer walls and the northerly exposure. The simplicity of the design will surprise you.

An ADSCO SYSTEM can be installed quickly and without trouble, it is the outstanding heating system for comfort and economy.

On the following pages are shown a few of the thousands of all variety and sizes of buildings in which ADSCO HEATING is radiating comfort.

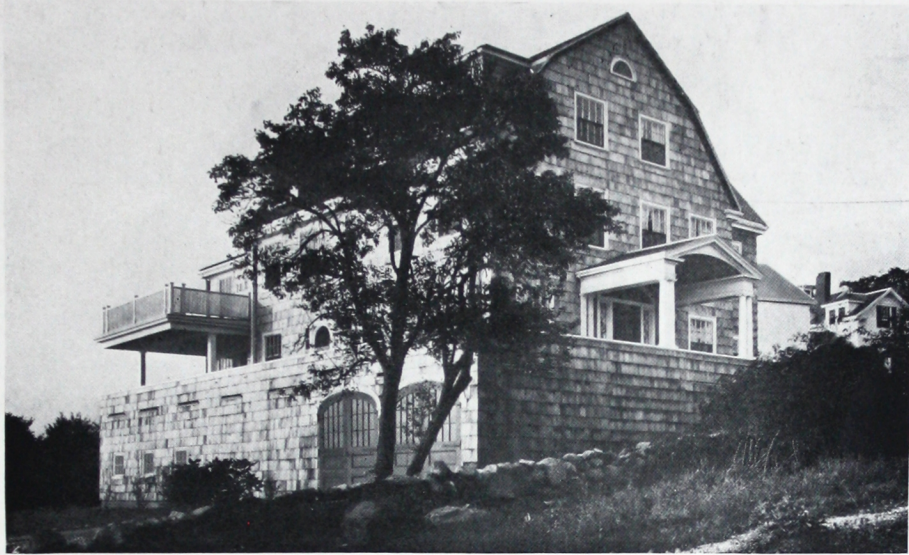


General Offices and Works of

AMERICAN DISTRICT STEAM COMPANY

NORTH TONAWANDA, N.Y.

ADSCO HEATING RADIATES COMFORT



Residence of John M. Bullard, New Bedford, Mass.

Nat C. Smith, New Bedford, Mass.
Architect

F. E. Earle Company, New Bedford, Mass.
Heating Contractors

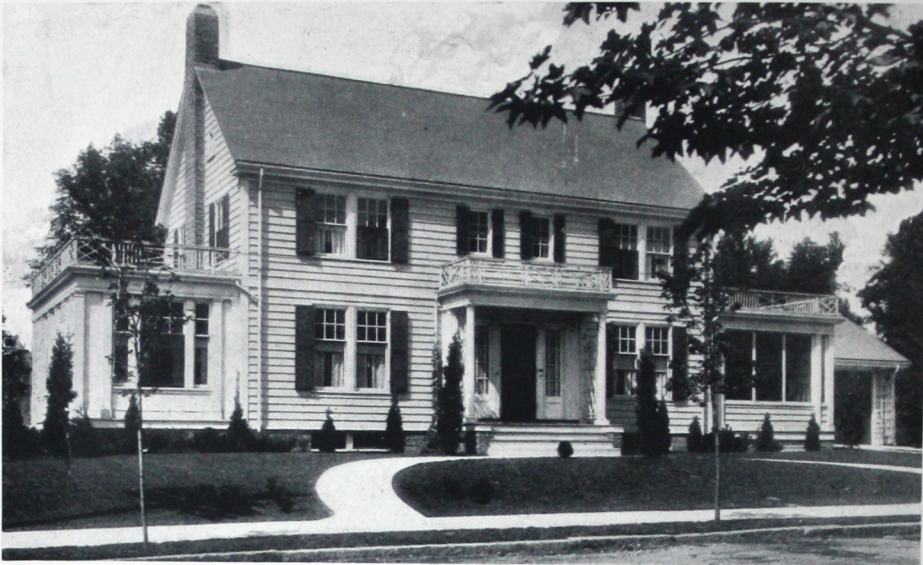


Residence of James T. Murray, Fairhaven, Mass.

Adden & Parker, Boston, Mass
Architects

F. E. Earle Company, New Bedford, Mass.
Heating Contractors

ADSCO HEATING RADIATES COMFORT IN HOMES



Residence of Ira S. Sawyer, Portland, Maine.

John Calvin Stevens and John Howard Stevens
Architects

Wiley & Calhoun, Portland, Maine.
Heating Contractors

15 Radiators in House. 2 Radiators in Garage.



Three Residences, Portland, Maine. All have ADSCO SYSTEM OF ATMOSPHERIC STEAM HEATING installed.

First Residence, Arthur C. Frost, 17 Radiators.

Second Residence, John S. Foss, 12 Radiators.

Third Residence, F. W. B. Martin, 11 Radiators.

ADSCO HEATING RADIATES COMFORT IN CHURCHES



Methodist Episcopal Church, South Fairmont, W. Va.

C. H. Snider, Fairmont, W. Va.
Architect

C. E. Mumford, Fairmont, W. Va.
Heating Contractor



First Church of Christ Scientist

ADSCO HEATING RADIATES COMFORT IN BANKS AND HOTELS



Riddle & Riddle, Chicago, Ill.
Architects

Iowa State Savings Bank, Cedar Rapids, Ia.

J. W. Garrath, Cedar Rapids, Ia.
Heating Contractor



Bancroft Hotel, Saginaw, Mich.
Architects, Schmidt, Garden & Martin of Chicago

ADSCO HEATING RADIATES COMFORT IN CLUBS AND THEATRES



University Bldg., Kansas City, Mo.
Steam is received from a DISTRICT STEAM HEATING PLANT



Palace Theatre Bldg., Peoria, Ill.



Y. M. C. A. Building, Cedar Rapids, Iowa
Cyrus Metcalf, Jr. & Co., Cedar Rapids, Iowa
Heating Contractors



Dodson Apartments, Champaign, Ill. 16 Apartments.



St. Mary's Hospital, Niagara Falls, N. Y.



Tsing-Hua College Building, Peking, China
STEAM is received from a CENTRAL STATION

ADSCO HEATING RADIATES COMFORT IN OFFICE BUILDINGS

Chambers Building, Kansas City, Mo.
Chas. A. Smith, Kansas City, Mo.
Architect



Security Building
Kansas City, Mo.

